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The Millennium Challenge Corporation: Organizational Constraints on US Foreign Aid, 2004–11

JAMES H. LEBOVIC *
The George Washington University, USA

Summary. — The Millennium Challenge Corporation (MCC) was established in 2004 to channel billions of US foreign assistance dollars to various infrastructure projects within a select group of low income countries that could presumably help themselves, when ruling justly, investing in people, and encouraging economic freedom were considered primary contributors to self-sustaining economic growth. Through multi-method analysis, this study reveals that, with its choice of assessment categories and accompanying indicators, the MCC undermines its governing principles in aid-candidate qualification.
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1. INTRODUCTION

During the Cold War, US security and political interests largely determined a country's aid receipts. After the Cold War ended, large amounts of US aid were directed specifically to countries based on their needs and domestic practices. Whereas US policymakers once asked frequently whether the United States could afford to use aid, for instance, to support and spread democracy abroad given pressing global security threats, they now often assumed that fostering good governance would help serve US foreign-policy goals and the needs of potential recipients. Their assumptions took hold in the US government with a new programmatic requirement that countries qualify for aid by establishing their good governance using various criteria. In creating the Millennium Challenge Corporation (MCC) in 2004, the US Congress and the President sought to channel billions of US foreign aid dollars to infrastructure projects in low income countries that presumably were positioned, by merit of their good governance, to help themselves to achieve self-sustaining economic growth.

The MCC's exceptional transparency affords an opportunity to see how decisions regarding country eligibility and selection for funding are actually made and thus to assess the criteria that guide, and the various organizational practices that affect, those decisions. I thus proceed as follows. First, I discuss the limits of the existing approach to the analysis of aid determinants in light of instrumental tradeoff decisions that are made within government. Second, I examine and assess the procedures that the MCC employs to qualify countries for aid, focusing on the categories and indicators that the MCC has utilized in its assessments. Third, I conduct a factor analysis of these measures; then, using logistic regression and Weibull survival models, I assess whether and how the unrecognized dimensionality of the criteria affect both the MCC's candidate-qualification and eventual funding decisions in the 2004–11 period—which, because of its novelty, is sometimes excluded from analysis (Travis, 2010). I then present my conclusions.

I conclude that the goals that the MCC nominally pursues are ill-served by its categorization, choice, and handling of indicators for selecting aid candidates. I conclude further that the formal rules that the MCC employs to assess country performance have unintended effects, providing evidentiary support for organizational theories that maintain that rules that simplify and regiment a task can surreptitiously influence policy outcomes. Indeed, I establish that the MCC has left itself open to unappreciated statistical effects by relying on a fairly inclusive set of measures that are grounded in equally weighted categories.

2. DECISIONAL TRADEOFFS WITHIN GOVERNMENTAL ORGANIZATIONS

The large literature on aid-distribution patterns establishes that donors have distributed assistance to serve their own economic, political, and military interests and, less so, to address the economic needs of recipients or their rights practices (e.g., Alesina & Dollar, 2000; Berthélemy, 2006; Neumayer, 2003; Schraeder, Hook, & Taylor, 1998).[1] Recent studies indicate, in fact, that political and strategic favoritism exhibited by donors extends even into disaster relief (Drury, Olson, & Van Belle, 2005; Fink & Redaelli, 2010); that the United States has favored rights abusing countries in distributing food aid, overcoming legal restrictions on the distributing of other forms of aid (Fariss, 2010); and that the responsiveness of US aid to recipient need dropped with the US war on terror (Fleck & Kilby, 2010). Indeed, studies of whether the United States conditions its aid on recipient needs and human rights practices have produced mixed results across periods and cases (e.g., Apodaca & Stohl, 1999; Carleton & Stohl, 1987; Meernik, Krueger, & Poe, 1998; Poe, 1992). More recently, Balla and Reinhardt (2008) found, in the 1960–97 period, that the direction of the relationship between gross domestic product (GDP) per capita and aid varied by donor, as did the fact of a positive significant relationship between higher democracy

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scores and aid. Adopting a more finely grained governance measure, Dollar and Levin (2006) found that "rule of law" was negatively associated with multilateral and bilateral aid in 1984–89, positively associated with multilateral aid in 2000–03, but insignificantly related to bilateral aid in the same post-Cold War period.[2] Lebovic and Voeten (2009) found that the condemnation of a country by the United Nations Commission on Human Rights decreased a country's multilateral but not bilateral aid receipts and that aid, of both types, was insensitive to a country's rights scores (using a conventional indicator).

With post-Cold War changes in the international political environment and growing concern that aid had not spurred self-sustaining development, donors soured, however, on existing aid practices. By the late 1990s, widespread "aid fatigue" led bilateral and multilateral donors to adopt a new approach—directing aid to well-governed countries that could use it effectively. Accordingly, the MCC was established to promote measurable economic growth among the world's poorer countries, assuming that economic development is best pursued by reform-minded governments through democratic and free-market institutions (Tarnoff, 2011, p. 1).[3] With these changes, domestic practices—including rule of law, civil liberties, liberal trade and fiscal policies, and egalitarian social (health and education) policies—became prominent criteria for distributing aid.[4] But the rewarding of countries for practices that promote self-sustaining growth requires a reassessment of the long-standing assumption in the analysis of aid-allocation patterns that donor-country leaders choose from among basic objectives. This assumption has three problematic implications.

First, it suggests that national goals primarily conflict. The research question—as typically posed—is whether the United States subordinated recipient needs to its own national-security policy goals or pursued different aid policies in the Cold War than in the post-Cold War period (Meernik *et al.*, 1998); whether "politics" intervenes in the granting of humanitarian assistance (Drury *et al.*, 2005); whether humanitarian considerations matter more to Democratic than to Republican administrations in granting aid (Travis, 2010); and so forth. These are important questions; but they are not the *only* questions.[5] In word and action, US leaders appear to treat democratization, peace, and development as (somewhat) complementary goals. So, policies that follow must be understood and evaluated accordingly.

Second, the assumption paradoxically downplays conflict among goals that stems from tradeoffs in pursuing complementary objectives. Analysts are correct that conflicts among some donor objectives declined with the end of the Cold War, and thus that donors acquired new leverage for pushing reforms upon aid recipients because they could no longer capitalize upon their security value to resist (Bearce & Tirone, 2010). But contemporary donors must still make difficult choices among goals that ostensibly serve the same objective. For example, in seeking to make best use of resources to foster self-sustaining economic development, the challenge lies in determining which of a mixed bag of country attributes to reward (and punish); whether to reward a given attribute (e.g., democracy) for its facilitative impact or, instead, for its inherent value; and how much to reward an attribute when its relative impact on development, in a given context, is controversial. Indeed, these choices spark ideological disputes and, therefore, competing policy approaches that might coexist uneasily in a single administration.[6]

Third, following from the above, this notion of competing priorities focuses attention on the choices among goals that are made by national leaders over decisions that are made *within* government in the pursuit of basic objectives. National leaders decide whether to shift resources to combat terrorism, support vital military allies, promote democracy, fight disease and poverty, or some combination of these goals, perhaps in seeking a host of benefits. But, within these broad constraints, department and agency officials must judge whether the overarching goals are served best by providing aid—of various types and quantities—to one country over another. Their role only increases when the task at hand centers on instrumental goals of greater specificity: whether monies should be invested in military training and education here or there, or whether a given infrastructure project in one country deserves funding over a similar project in another, are rarely matters for Presidents, or their top advisors, to decide.

Given the prevalence of the leadership focus (in state-centered thinking), it is small wonder that quantitative analyses of foreign-aid allocations ignore intra-governmental processes or account for them crudely by incorporating an endogenous lag term (the dependent variable at year $t - 1$) into models. The latter treatment is a modest departure from the first for it suggests that government organizations simply lock in leadership choices to impede shifts in priorities. As such, it reduces organizational behavior to "inertia." Certainly, this depiction clashes with the prevailing view of bureaucratic politics (Allison, 1971), for an organization that defers routinely to prior practice neglects its own interests. It will not proactively extend or defend its turf, such as by shifting priorities to deflect bureaucratic challenges or to claim a larger share of budgetary resources (Lebovic, 1994). But this depiction also accounts inadequately for *organizational* behavior. In practice, organizations do not just adhere to prior leadership decisions: they distort, reinterpret, and override these decisions in following their own formal and informal rules to implement policies.[7] An organization that was formed, then, to assist certain types of countries—such as those that abide by the rule of law—might not actually favor those countries.

Government organizations can greatly affect policy outcomes that require balancing choices among instrumental goals when their relative impact, and standards for assessing that impact, are in question or dispute. To routinize and simplify complex assessments of mutually reinforcing, synergistic, or substitutable objectives, the organization might design and evaluate policies around a narrow set of indicators (Cyert & March, 1963; Steinbruner, 1974). Illustrating this tendency, the US government relied on "monies spent" on local projects to indicate progress in stabilizing Iraq in the turbulent aftermath of the 2003 US invasion (Londoño, 2013). But are these proclivities found in organizations, such as the MCC, that are mandated to balance a variety of considerations? If classical assumptions hold, the organization should still narrowly perform its tasks. Although appearing to engage in comprehensive assessment of a broad set of indicators, it will make the indicators, not their purposes, the focus of analysis. As a result, the organization will presumably: (a) assess indicators without due concern for their overlap, relative importance, or redundancy and (b) adopt rules that avoid choices among indicators. By default, it will opt for inclusiveness, duplication, and equality, over prioritization and selection. Together, these tendencies will impugn or contravene the goals that the organization supposedly serves and impede it from functioning per its formal requirements.

Therefore, the question is not whether—but *how*—a government institution that was established to promote good governance follows through on its mandate. That the MCC is prone to unanticipated decisional outcomes would provide

additional evidence of the limits of outcomes-based performance measures for improving government accountability and effectiveness (see, for example, Barnow & Heinrich, 2010; Heinrich, 2002; Klitgaard, Fedderke, & Akramov, 2005). Thus, three important empirical questions guide this analysis. First, how closely are the categories and measures that are employed by the MCC tied to its ostensible purposes? Second, given the MCC's assessment practices, what impact do the individual categories and indicators that the MCC links to good governance *actually* have in qualifying a country for MCC assistance and explaining a country's receipt of aid? Third, should the MCC's rules work counter to their ostensible purposes, does the MCC compensate effectively through "informal rules" (Zenger, Lazzarini, & Poppo, 2002), bringing practices more into line with formal preferences? A negative answer speaks to distortions that government organizations can introduce when translating leadership preferences into practices.

3. MCC PRACTICES AND THEIR DEFICIENCIES

With its initiation, the MCC was heralded as potentially "the most important change in US foreign assistance policy in 40 years" (Radelet, Lucas, & Bhavnani, 2004). The fanfare was appropriate given the accompanying (albeit unfulfilled) promise that the MCC would allocate $5 billion per year and the structural arrangements that were adopted to safeguard its mission. The MCC stood outside the established foreign assistance bureaucracy, with its own country selection, funding, and oversight procedures. In FY2004, the MCC began qualifying low income countries for assistance; in FY2006, the MCC started considering (the smaller group of) lower middle income countries for aid, under a legislative restriction that limited these countries to 25% of compact assistance.[8] By 2010, the MCC had obligated worldwide almost 10 billion dollars in aid (in 2010 dollars).[9]

Under the MCC's procedures, low income and lower middle income countries qualified for aid for having scored above their income-group median (though inflation cannot exceed 15%), on at least half of the indicators (which must include the measure of "corruption") within each of three general categories—*Ruling Justly*, *Investing in People*, and *Encouraging Economic Freedom*.[10] With a passing score, countries can propose projects for US funding. This can lead to the formal signing of a "compact," after lengthy consultation with and within those countries, and stringent MCC evaluation and review. With a compact, the United States pledges assistance—over a maximum of 5 years—for a given set of projects in a country, contingent upon its adherence to the terms of the agreement.

Within the three basic categories, the MCC has periodically reassessed the measures that it employs to qualify countries for funding. It places a premium on indicators that theory and evidence have supposedly linked to economic growth and poverty reduction; and it selects indicators that are compiled by an "independent third party," are "rigorous and publicly available," "utilize objective and high-quality data," offer "broad country-coverage and are comparable across countries," generate consistent results over successive years, and yet tap qualities that are open to government short-term influence. Apparent in Table 1, the MCC altered the set of indicators that it employed in FY2008, primarily under *Encouraging Economic Freedom*, after having replaced one indicator in that category in FY2006.

It planned a major revision for FY2012 in some indicators (mainly under *Investing in People*) and threshold values, which differentiate a pass from a fail. Revisions have reduced redundancy among the measures. For example, as of FY2008, days to start a business and the cost to start a business were combined into one business-environment measure (business startup). The revisions have also broadened the range of criteria against which countries are assessed. For example, in FY2008, natural resources management and land rights and access were added to the indicator mix. By FY2012, the revisions will recognize (to a limited extent) that evaluating countries requires income-appropriate indicators—the girls' primary education completion rate and girls' secondary education enrollment rate, for low income countries (LICs) and lower middle income countries (LMICs), respectively.

The MCC has departed from formula when concluding that existing rules and measures inaccurately convey a country's performance. The MCC Board of Directors (acting in executive session) has used its discretion in individual cases, disqualifying and qualifying countries for aid. It has disqualified countries for funding, when judging them to have scored well below the median on a given indicator, and it has qualified others for funding based on mitigating circumstances. These include a country's positive performance trajectory on an indicator of concern, promising policy reforms, data deficiencies that impair a performance evaluation, and lag in meeting revised MCC scoring standards. The MCC has also provided transitional assistance to countries with failing scores to boost their test performance and to lay the foundation for economic growth and it has funded projects in countries, after negotiating or signing a compact, that later received failing scores.

Despite their rigor, flexibility, and transparency, the MCC's rules have troubling consequences that have subjected them to persisting and widespread criticism (see Radelet *et al.*, 2004). Some of the criticism has centered on the margin of error in the MCC's qualifying measures which impairs their use in cross-national or longitudinal comparisons (Jafari & Sud, 2004). Other criticism has centered on the requirement that countries exceed income-group medians within a category. Although a mid-point standard has visceral appeal, the median presents a moving or elusive target: it changes from year to year and rises with absolute performance improvements within a group; moreover, it penalizes the many countries at the median of an ordinal measure with a small range of values (Radelet *et al.*, 2004). Deeper problems with the median stem from its use despite the attributes under evaluation. Countries in the bottom half on the corruption index might not deserve aid but is that true of immunization rates? A country with a low immunization rate is arguably a funding *priority* if it is otherwise governed well and is capable then of improving public health within the country. Under the MCC's formal rules, however, a country could fail to qualify for funding due to a poor immunization rate as much as deficient civil liberties or regulatory quality.[11]

Concerns about deficiencies in the MCC's calculating methods distract somewhat from basic issues, arising from the MCC's guiding categories and accompanying indicators, that could compromise the validity of aid-candidate selection decisions. The troublesome nature of the concepts and indicators is conveyed by the elusive answers to two basic questions.

For one, "why these categories?" Even if the MCC is correct that governments that respect freedom, encourage private entrepreneurship, and seek to improve the quality of life of their citizens deserve US aid over countries that perform inadequately in one or more of these categories, it must address the problematic issue of weighting categories that vary in importance and stand in casual relation to one another. Thus, the question, as posed, provokes a host of specific ones.

Table 1. *MCC Categories and Indicators: FY2004–12*

Y2004–07	FY2008–11	FY2012
Ruling justly		
Political rights FH	Political rights	Political rights
Civil liberties FH	Civil liberties	Civil liberties
Control of corruption WBI	Control of corruption	Control of corruption
Government effectiveness WBI	Government effectiveness	Government effectiveness
Rule of law WBI	Rule of law	Rule of law
Voice and accountability WBI	Voice and accountability	–
–	–	Freedom of information FH/FS/ONI
Investing in people		
Immunization rate WHO	Immunization rate	Immunization rate WHO/UNCF
Health spending WHO	Health spending	Health spending
Primary education spending UN/ns	Primary education spending	Primary education spending
Girls primary education completion UN/WB	Girls primary education completion	Girls primary education completion, LICs UN
–	Natural resource management C/Y	–
–	–	Girls secondary education enrollment, LMICs UN
–	–	Child health C/Y
–	–	Natural resource protection C/Y
Encouraging economic freedom		
Regulatory quality WBI	Regulatory quality	Regulatory quality
Days to start business IFC	–	–
Credit rating (FY2004–05) IIM	–	–
Cost to start business (FY2006–07) IFC	–	–
Trade policy HF	Trade policy	Trade policy
Inflation IMF	Inflation IMF/WEO	Inflation
Fiscal policy ns	Fiscal policy IMF/ns	Fiscal policy IMF/ns/WEO
–	Land rights and access IFAD/IFC	Land rights and access
–	Business start-up IFC	Business start-up
–	–	Access to credit IFC
–	–	Gender in the economy IFC

Data sources: C = CIESSIN (Center for International Earth Science Information Network); FH = Freedom House; FS = Fringe Special − Overview of all Freedom of Information Laws; HF = Heritage Foundation; IFAD = International Fund for Agricultural Development; IFC = International Finance Corporation; IMF = International Monetary Fund; IIM = Institutional Investor Magazine; ns = national sources; ONI = Open Net Initiative; UN = UNESCO; UNCF = United Nations Children's Fund; WB = World Bank; WBI = World Bank Institute; WEO = World Economic Outlook (IMF); WHO = World Health Organization; Y = YCELP (Yale Center for International Law and Policy).

First, when selecting countries for assistance, is the MCC seeking equity to close global performance gaps? Or, is it seeking efficiency to make best use of available resources? Given the MCC's *raison d'etre*, and the MCC's practice of giving favorable ratings to countries with better health and education systems, the latter is the obvious answer. But that is not the implication of various MCC practices. If so, for example, why bother to screen low income and lower middle income countries separately? Does not the efficient use of available resources require open competition *across* the two groups? Indeed, LICs are shown decided favoritism over LMICs under the Congressional restriction that the latter can claim only one quarter of compact assistance.

Second, does the MCC seek to reward good governance or to promote economic development? Its mandate suggests that the MCC rewards good governance to facilitate economic development: its "main mission is not democracy promotion, but rather 'reducing poverty through economic growth'" (MCC, 2007a, p. 1). In its view, however, the causal relationship between democracy and growth is clear and indisputable: "Over time, democracies experience more predictable and lasting growth, greater economic stability, more equal distribution of income, and recover more quickly from economic shocks (MCC, 2007b, p. 3)." Therefore, the MCC is arguing for rewarding democracies. Indeed, it is doing so without regard for the age of the democracies that are involved or their level of development; the possibility that a positive relationship, if observed, owes to reverse causality with democracies thriving in stable and growing economies (see Abouharb & Cingranelli, 2007, pp. 203–224); or the irregularities of the empirical pattern (see, e.g., Przeworski, Alvarez, Cheibub, & Limongi, 2000). One recent study found, for instance, that below an income threshold, democracy increases the potential for political violence by making rebellion easier (Collier & Rohner, 2008). Thus, the expression of civil liberties can destabilize a country, creating an inhospitable environment for economic investment, savings, and growth. At a minimum, then, the MCC should recognize that the significance of high scores on specific good-governance criteria varies with their contribution to development and the goals for development of a country. Relevant in this regard, around two-thirds of compact aid in the 2004–11 period went into transport, agriculture, and water and sanitation sectors, compared to 13% for health, education, and governance (Tarnoff, 2011, p. 8).

Third, is the MCC seeking to *reward* good governance or to *build* it, by investing in good governance when it occurs? Its mandate suggests that the MCC has a strong preference for country self-reliance and "home-grown" institutions. Still, the MCC has provided threshold assistance to countries to help them—eventually—to receive passing scores on key indicators, which has led countries to seek to improve their performance against the MCC's evaluation criteria (Tarnoff, 2011, p. 4). Although the MCC backed away from such assistance with concerns about its limited effectiveness (MCC, 2010), programs that succeed in raising scores might still not contribute to broad-based development.

Even if the categories are right, "why these indicators and not others?" Because the MCC conducts its yearly analysis of countries at the low end of the economic scale, where data are especially problematic, and equates missing data with a failing score, it is correct to screen and select indicators carefully to reduce the effects of a selection bias that favors the inclusion (exclusion) of data for certain types of countries. Thus, it is right to employ indicators that are updated regularly by their sources, relatively free of missing values, and publicly available and open to scrutiny. It is also correct to employ them in quantities and varieties that protect against the deficiencies of any single indicator. But various questions arise from the indicator collection.

First, are the indicators placed in the correct categories? The corruption indicator is located in *Ruling Justly* when it could just as easily be found in the other two categories. After all, corrupt governments consume public resources that could otherwise have been employed for the greater good and impede private economic interests from converting their plans and resources into economic growth. Thus, corruption is related, for instance, to "regulatory quality" which the MCC considers under *Encouraging Economic Freedom*. By placing corruption within the *Ruling Justly* category, the MCC has altered the relative influence of other indicators within each of the three categories. It has effectively decreased the weight of each of the openness of government (political rights, civil liberties, and voice and accountability) indicators within *Ruling Justly* (a passing corruption score can substitute for a passing score on an openness indicator) and it has created room (given a desire to maintain roughly equal numbers of indicators across categories) in *Encouraging Economic Freedom* and (perhaps) *Investing in People* for indicators that reveal less than corruption does about a country's development potential. [12]

Second, are the different indicators actually measuring the same thing? If the measures are interchangeable (differing only due to measurement error), the MCC is double, triple, or quadruple counting one attribute at the expense of counting others of interest. Thus, the MCC's logic of including a civil liberties, political rights, *and* a voice and accountability measure (in FY2012, freedom of information) in *Ruling Justly*, and interrelated fiscal policy *and* inflation measures under *Encouraging Economic Freedom*, begs for elaboration.

Third, are the indicators composed of sub-indicators that vary greatly in relevance and importance? That appears true of the Freedom House "political rights" and "civil liberties" indicators, which are based on expert responses to a checklist of questions. [13] These questions differ in their centrality to the set of rights under scrutiny: whether people can organize is more germane to political *rights* than is whether opposition forces are in positions of power. Other questions appear to subsume others. Whether people can vote "by secret ballot or by equivalent free voting procedure" is arguably more essential to political rights than whether people can vote "without undue pressure or intimidation." Presumably, a truly secret ballot frees a voter from such pressure or intimidation. Conversely, if the concern is with post hoc collective retribution—the punishing of a population for its official voting preferences—then the mechanics of voting matter little. In either instance, a "yes" to both questions for a given country in a given year warrants only a single point, not two. Still other questions appear unrelated substantively to the indicators. The civil liberties index is constructed from answers to an unwieldy mix of questions that conflate civil liberties with egalitarian norms and economic freedom; and both indicators include questions that pertain to other MCC indicators—in *other categories*. [14] The political rights index includes a host of questions that relate to corruption in government; the civil liberties index draws from a subcategory of questions on "rule of law," which the MCC employs separately as a *Ruling Justly* indicator, and "personal autonomy and individual rights" (property rights, ease of establishing a business, et cetera) which the MCC evaluates under *Encouraging Economic Freedom*. [15] The aggregation of responses to these questions to produce subcategory scores, and their aggregation to produce overall scores, inevitably washes out telling variation in the components of interest. [16]

Finally, and most fundamentally, are the indicators in effect defining the conceptual properties of the underlying categories? Whereas operational definitions properly follow from conceptual definitions (Adcock & Collier, 2001), the MCC's concepts (categories) arguably reduce to the measures by default, lacking a clear standard for judging the validity of an indicator, that is, its fit within a given category. It is one thing to say that a government that manages its national resources well or spends money on health or education deserves credit for "investing in people" and quite another to insist that the former qualifies a country for aid in lieu of spending on health or education or, for that matter, that the latter qualifies a country for aid without evidence that it *performs* well in health or education. [17] If any of a diverse set of indicators substitutes for (almost) any other in a category, it is hard to argue convincingly that measures are grounded in a coherent conception of good governance. Why include girls' primary completion rate as a performance indicator unless supposing that a society that denies equal opportunity to females is fundamentally not a well-governed country? If the MCC is making that assumption, should a country qualify for aid, then, based on *overall* education spending without concern for its distribution by gender? Is the MCC thereby suggesting that an educated male population can compensate for a woeful lack of gender equality?

If measures within a category are selected for their diversity *per se*, the attending variety impugns the logic behind the MCC's choice and weighting of categories. No less significantly, it calls into question the fit between the good-governance qualifications of a given country and the projects that the MCC funds within it. How useful is a high immunization rate or girls' completion rate when new projects are undertaken in transportation or agriculture? Thus, analysts must probe beyond the practices that have received the most criticism within and outside the institution. On any exam, rules of question selection supercede rules governing the determination of a "right" or "wrong" answer on specific questions or the number of right answers necessary for an overall "pass." Examiners must *first* ask themselves whether a test is fair, that is, whether the questions are overly redundant, narrow, selective, and appropriate. On these counts, outsiders have reason to criticize the MCC's criteria, regardless of their numbers and diversity or the MCC's apparent willingness to augment or replace them.

4. ANALYSIS

Employing data that the MCC has made available in a usable format, [18] the analysis proceeds in two stages. First, factor analyses are conducted separately on low income and lower middle income countries for each set of criteria in two periods (to determine the sensitivity of the results to the MCC's changing set of indicators). Whereas the MCC assumes that a given indicator *belongs* in the category in which it was placed, that is, that the categories reflect the underlying

dimensions in the data, an exploratory factor analysis can disclose co-variation patterns within the full set of indicators to reveal whether these categories have an empirical basis: presumably, measures within the same category are more strongly correlated with one another than with measures in other categories. If only some measures group together in a category, or some measures group consistently with those in other categories, countries are actually being evaluated on unrecognized dimensions in the data. Second, logistic regression and survival models are employed to assess the influence of discerned dimensions on the MCC's candidate-qualification and funding decisions. The logistic models can reveal the relative impact of each dimension on candidate selection; in turn, the survival models can reveal the relative impact of these dimensions—as compared to the fact of a passing score—on eventual funding decisions (that is, the receipt of a compact by a given country).

(a) *Factor analysis results for LICs and LMICs*

So, do the empirically discerned dimensions mirror the MCC's categorization of indicators? The answer is revealed in Table 2, which displays the findings of factor analyses that are conducted separately for low income and lower middle income countries, in FY 2004–07 and 2008–11.[19]

The top half of the table presents the results using the 16 indicators that the MCC employed in the early period; the bottom half of the table presents the findings based on the 17 indicators that the MCC employed in the second period. (The analysis excludes LMICs before FY2006, when lower middle income countries were first eligible for MCC support.) To highlight the underlying (orthogonal) dimensions, the results of a varimax rotation of the factors (dimensions)—with eigenvalues greater or equal to 1.00—are reported.[20] (The eigenvalue reveals the amount of covariance that a factor explains in the full set of indicators.) Two factors are reported for low income countries in the FY2004–07 period; three factors are discerned in one LMIC analysis in the FY2006-07 period and in both LIC analyses in the FY2008-11 period; and four factors are reported in all but one of the analyses for lower middle income countries.[21] In these analyses, missing data are replaced with estimates to avoid sample bias from casewise deletion of missing data.[22] The table yields a number of specific conclusions.

First, the LIC analysis provides some justification, especially in the early period, for the MCC's categorization of indicators. Specifically, a *Ruling Justly* dimension emerges in the findings—prominently, in the 17 indicator analysis. Employing a .50 loading as the threshold value for tying an indicator to a factor, the discerned dimension backs the MCC's judgment that the five indicators within the category constitute a coherent group: the dimension is inclusive of all the indicators within *Ruling Justly* and exclusive of all indicators in the two other categories.

Second, despite the prior finding, the analysis reveals that the *Ruling Justly* indicators contribute consistently to two separate dimensions. The indicators that are tied most directly to open governance—political rights, civil liberties, and voice/accountability—load heavily together on a distinct dimension. Indeed, this "openness" factor is the primary dimension in both income samples, regardless of time period or criteria employed. The indicators that are tied to government "quality"—specifically, levels of corruption, government effectiveness, and rule of law—vary together to constitute a separate dimension. The clarity of these two dimensions is, however, related to income. In low income countries, open governance is also tied to lower corruption, greater rule of law, and more effective governments, suggesting that "all good things" actually do go together in this income group as countries divide, then, between the "better" and the "worse" at governance. But, in lower middle income countries, a duality is evident: open governance exists apart from the quality of governance. The practical translation: lower middle income countries are more likely to receive passing scores in *Ruling Justly* for being open but not good or good but not open than for being somewhat open and somewhat good at governance.

Third, governing quality is itself multidimensional for it is tied to various other indicators in the analysis. Although governing quality is a fairly distinct and self-contained dimension for lower middle income countries, it is tied to regulatory quality and sound fiscal policy (and thus also a lower inflation rate) in analyses for low income countries. For these countries, in the second period (FY2008–11), the governing quality indicators are tied to all three discerned dimensions (with one set of indicators or the other), loading heavily with various national policy and policy outcome indicators (in the *Investing in People* and *Encouraging Economic Freedom* categories).[23] For LICs, the quality of governance is an important concomitant of governance attributes that the MCC rewards and encourages.

Fourth, the *Investing in People* indicators are inconsistently related to one another. For lower middle income countries, health and primary education spending load on the same dimension in the early period; land access, trade policy, and natural resources management also load heavily (in the opposite direction) on that dimension in the second period—the result, it appears, of including natural resources management (with the FY2008 scorecard). For low income countries, the immunization and girls' primary completion rates—linked to policy outputs (not budgetary inputs)—load together on the same dimension, along with natural resources management (in the second period). The effect for these countries of including natural resources management on the scorecard (judging from the results for the two sets of criteria) is to give empirical prominence to co-varying *Investing in People* indicators at the expense of co-varying (*Ruling Justly*) governing quality indicators.

Because the findings are generally stable across time periods and because a full-period analysis will facilitate the analysis of country qualification and funding decisions (in the section to follow), the factor analysis is repeated for each set of criteria and income group across the 8-year period. The results are found in Table 3.

For both sets of criteria and income groups, the findings indicate that: (a) the three highly intercorrelated measures of governing openness load heavily on the consistently largest dimension in the analysis; (b) governing quality (linked to governing effectiveness) stands apart, as a dimension, from political freedom (albeit most clearly in the LMIC group); and (c) regulatory quality is linked to sound fiscal policy (and the control of inflation). Whereas government effectiveness is linked in LICs to each of three dimensions, which suggests that it is necessary for delivering performance in these countries, it is an independent virtue in LMICs, that is, it is not linked to regulatory quality, budget preferences, or policy outcomes. In addition, in the LMIC sample, land access and natural resources management load heavily and positively, and health and primary school spending load strongly and negatively, on the fourth dimension. Thus, sound land and resources policies in these countries force a trade off with social-welfare funding.

In sum, the findings suggest that the dimensionality of the data is not greatly affected by time period nor even by the

Table 2. *Factor Analysis of the Full Sets of MCC Indicators on LICs and LMICs in Two Periods*

Criteria	LIC countries					LMIC countries							
	FY2004–07		FY2008–11			FY2006–07				FY2008–11			
First set													
Ruling justly													
Political rights	(.94)	.06	(.94)	−.03	.04	(.94)	.10	.05	−.08	(.96)	.00	.02	−.01
Civil liberties	(.94)	.14	(.96)	−.02	.15	(.95)	.14	.16	−.08	(.97)	−.06	.12	.02
Corruption	(.50)	(.56)	.48	(.61)	.39	.26	(.69)	−.03	−.18	.33	.27	(.71)	.08
Govt. effectiveness	.47	(.65)	.43	(.62)	(.52)	.08	(.94)	−.13	−.00	−.05	.19	(.82)	−.20
Rule of law	(.59)	(.65)	.48	(.60)	(.50)	.24	(.63)	.49	−.22	.38	.13	(.77)	.21
Voice/accountability	(.95)	.14	(.89)	.39	.05	(.93)	.18	.21	.00	(.97)	.05	.13	.13
Investing in people													
Immunization rate	.06	(.67)	.04	.08	(.67)	−.48	.05	−.03	.10	−.19	−.05	.27	.00
Health spending	.45	.06	.39	−.01	.26	.25	−.08	(.87)	−.09	.54	−.06	.04	(.57)
Primary ed. spending	.20	−.17	.12	.16	−.02	.33	−.25	(.56)	.31	.23	−.07	−.02	(.63)
Girls primary completion	.13	(.56)	.17	.05	(.65)	−.10	.23	.35	−.09	.16	−.28	.42	−.05
Economic freedom													
Regulatory quality	.07	.27	.01	(.94)	.02	.24	(.75)	−.13	.34	−.01	(.94)	.17	.01
Days to start business	.08	.26	.27	.13	.32	−.15	.05	.34	.49	−.13	.02	.22	.00
Cost of start business	.09	.43	.12	−.03	.48	−.20	−.02	−.17	(.68)	−.07	−.24	.49	−.10
Trade policy	.12	.44	.33	.08	.28	.02	−.08	−.24	.10	.07	.09	.01	(−.64)
Inflation	−.17	−.06	.05	(.90)	.02	.24	−.14	(.50)	−.47	.03	(.92)	.13	−.14
Fiscal policy	−.14	−.00	−.00	(.76)	−.04	.28	−.16	(.50)	.01	−.05	(.79)	−.04	.07
Eigenvalue	3.82	2.52	3.65	3.61	3.04	3.46	2.57	2.24	1.26	3.49	2.63	2.37	1.27
$N =$	307		274			61				131			
Contribution to a pass	2	1	.	2	1	.	1	.	.	.	.	1	.
Second set													
Ruling justly													
Political rights	(.93)	.03	(.93)	−.03	.03	(.94)	.04	.09	.	(.96)	−.01	.02	−.01
Civil liberties	(.93)	.10	(.97)	−.02	.13	(.95)	.16	.14	.	(.97)	−.05	.12	−.03
Corruption	(.58)	.44	(.51)	(.64)	.26	.27	−.00	(.70)	.	.30	.23	(.76)	−.06
Govt. effectiveness	(.53)	(.63)	.46	(.65)	.44	.09	−.16	(.93)	.	−.06	.18	(.82)	.29
Rule of law	(.66)	(.55)	(.52)	(.64)	.39	.28	.43	(.64)	.	.35	.11	(.80)	−.21
Voice/accountability	(.95)	.08	(.89)	.39	−.00	(.93)	.21	.19	.	(.96)	.04	.15	−.12
Investing in people													
Immunization rate	.12	(.66)	.06	.12	(.68)	(−.51)	−.02	.05	.	−.16	−.04	.22	.10
Health spending	.48	−.04	.40	.01	.20	.25	(.89)	−.04	.	(.54)	−.10	.10	(−.59)
Primary ed. spending	.35	−.09	.09	.16	.01	.28	(.57)	−.23	.	.23	−.14	.06	−.48
Girls primary completion	.15	(.62)	.17	.08	(.74)	−.08	.29	.24	.	.21	−.27	.34	.25
Nat. resources manage	−.00	(.71)	−.01	.02	(.72)	−.12	(−.51)	.04	.	−.10	−.06	.06	(.73)
Economic freedom													
Regulatory quality	.30	.18	.00	(.95)	−.02	.20	−.16	(.75)	.	−.01	(.93)	.19	−.01
Land access	.04	(.58)	.21	−.10	.38	−.08	(−.80)	.09	.	−.20	−.22	.24	(.62)
Business start-up	.22	.32	.28	.10	.43	−.17	.25	.06	.	−.07	−.11	.35	.19
Trade policy	.18	.36	.34	.08	.34	.03	−.31	−.10	.	.11	.17	−.11	(.60)
Inflation	−.20	−.06	.04	(.90)	.01	.29	.45	−.12	.	.03	(.94)	.12	.06
Fiscal policy	−.03	−.06	−.01	(.75)	−.07	.29	.48	−.14	.	−.06	(.77)	−.00	−.09
Eigenvalue	4.25	2.85	3.77	3.72	2.45	3.46	3.01	2.57	.	3.49	2.64	2.35	2.11
$N =$	307		274			61				131			
Contribution to a pass	1	1	2	3	1	.	.	1		.	.	1	1

The reported results are for an orthogonal (varimax) rotation of factors with eigenvalues $\geqslant 1.00$.

MCC's (varying) choice of indicators, which has been a principal MCC preoccupation. The dimensional properties of the data are influenced, however, by which of the two income samples is assessed. Although the MCC evaluates countries only within the same income group, it is wrong to assume—as it does by categorizing the measures similarly for them—that data dimensions are constant across groups.

No less importantly, the analysis reveals empirical dimensions that cut across the MCC's categories in both groups. The factor analysis consistently shows that *Ruling Justly* is not a single dimension but includes measures that are tied to two competing dimensions. The first of these is an "openness" dimension that is linked to political rights, civil liberties, and voice/accountability; the second is "government quality," which is tied to low levels of corruption, rule of law, and government effectiveness. To be sure, quality governance contributes—in principle—to just rule. But the analysis reveals that countries that score high on one of these dimensions are not predisposed to score high on the other. To the contrary, government quality emerges as a dominant dimension for lower middle income countries apart from the accountability, rights, and liberties that are associated with just rule. For lower

Table 3. *Factor Analysis of the Full Sets of MCC Indicators on LICs and LMICs across the Full Period*

Criteria	LIC countries			LMIC countries			
First set							
Ruling justly							
Political rights	(.94)	−.07	.04	(.95)	−.01	.03	.02
Civil liberties	(.96)	−.09	.13	(.96)	−.06	.13	.09
Corruption	.49	.44	.48	.33	.22	(.70)	.01
Govt. effectiveness	.47	.44	(.56)	.01	.13	(.84)	−.23
Rule of law	(.54)	.41	(.59)	.36	.12	(.75)	.26
Voice/accountability	(.93)	.27	.11	(.96)	.04	.14	.16
Investing in people							
Immunization rate	.06	.04	(.68)	−.29	−.05	.20	.11
Health spending	.40	−.03	.20	.44	−.01	−.00	(.71)
Primary ed. spending	.22	.14	.04	.22	−.02	−.11	(.63)
Girls primary completion	.16	−.01	(.62)	.07	−.22	.37	.22
Economic freedom							
Regulatory quality	.05	(.94)	.09	−.03	(.94)	.15	−.01
Days to start business	.05	.13	.28	−.17	−.05	.13	.19
Cost of start business	.08	−.11	.41	−.11	−.26	.39	−.02
Trade policy	.25	.04	.28	.02	.10	.01	−.41
Inflation	.03	(.86)	.05	.02	(.93)	.11	−.06
Fiscal policy	.00	(.77)	.04	−.04	(.80)	−.05	.06
Eigenvalue	3.73	2.89	2.17	3.36	2.59	2.19	1.34
$N =$	581			192			
Contribution to a pass	2	.	1	.	.	1	.
Second set							
Ruling justly							
Political rights	(.93)	−.08	.03	(.96)	.00	.03	−.04
Civil liberties	(.95)	−.09	.11	(.97)	−.06	.13	−.09
Corruption	(.55)	.49	.33	.29	.21	(.73)	−.03
Govt. effectiveness	(.51)	.48	(.51)	.00	.14	(.82)	.31
Rule of law	(.59)	.47	.46	−.33	.09	(.79)	−.24
Voice/accountability	(.93)	.26	.04	(.95)	.03	.16	−.16
Investing in people							
Immunization rate	.10	.10	(.67)	−.26	−.06	.18	.03
Health spending	.44	.01	.07	.43	−.07	.10	(−.72)
Primary ed. spending	.23	.15	−.03	.21	−.09	−.00	(−.53)
Girls primary completion	.17	.03	(.69)	.13	−.23	.34	.06
Nat. resources manage	.02	−.05	(.71)	−.09	−.08	.07	(.67)
Economic freedom							
Regulatory quality	.05	(.94)	.02	−.03	(.94)	.16	.00
Land access	.15	−.10	.45	−.14	−.21	.20	(.67)
Business start-up	.20	.10	.36	−.11	−.07	.25	.00
Trade policy	.25	.04	.38	.07	.14	−.08	.49
Inflation	.02	(.85)	.03	.03	(.94)	.10	.02
Fiscal policy	.01	(.77)	−.03	−.05	(.78)	−.02	−.10
Eigenvalue	3.95	3.02	2.52	3.32	2.59	2.18	2.12
$N =$	581			192			
Contribution to a pass:	1	.	1	.	.	1	1

The reported results are for an orthogonal (varimax) rotation of factors with eigenvalues $\geqslant 1.00$.

income countries, in turn, government quality emerges as a dominant dimension because it is linked to measures within *Encouraging Economic Freedom* (in the later period) and *Investing in People* (in the earlier period). Consequently, the size of the dimension varies with the association between government quality and the measures in one of the two other categories. For low income countries, *Investing in People* (but not *Encouraging Economic Freedom*) is an independent dimension but not—judging from its eigenvalue—a dominant dimension. For lower middle income countries, whether *Investing in People* and *Encouraging Economic Freedom* are empirical dimensions varies with the indicator set and time period assessed despite the clearer evidence that, of the two, the latter stands as an independent dimension.

In short, the implication, then, is that the MCC has drawn incorrect inferences from the data. Its formal procedures suggest that it is basing its decision upon three independent dimensions. In actuality, it has relied on a smaller or larger number of dimensions, of which two (openness and government quality) are derived from indicators in the same category; one of these (government quality) is dominant—for one group of countries (LICs)—largely because it is tied also

to indicators in a second category; and the remainder, though less clearly defined, owe in varying degrees to that second category and a third.

(b) *Explaining MCC decisions*

The "size" of a dimension—its contribution to indicator covariance—does not dictate its impact upon candidate-qualification or selection. Indeed, "stacking the deck" with like-oriented indicators in *Ruling Justly* might mute their impact on qualification and funding decisions. This could result because *Ruling Justly* indicators are correlated only with one another rather than indicators in other categories. The practical influence of the discerned dimensions is assessed, then, by employing them as independent variables in models that first predict: a) the passing of the MCC's qualifying test and b) the signing and maintenance of a compact.

(i) *Candidate-qualification through passing the objective test*

To determine which countries qualify for aid, factor scores (the country values in a given year for a dimension) are employed in logistic models that predict whether or not a country receives an overall pass (i.e., across the three categories), based on the MCC's decision rules.[24] The models can help establish how much each dimension contributes to the probability of an overall pass and whether the contribution reflects a dimension's size (as judged by its eigenvalue) or expanse (as judged by its construction from measures *across* the MCC's categories). For the analysis, an overall pass (one) or fail (zero) is discerned from Country *Scorebooks* for each fiscal year.[25] The results of these analyses are important because the test score is a primary (albeit not sole) Board consideration when selecting countries for funding.[26]

The full results of the logistic analyses appear in the Appendix. Based on these results, a number marking the influence of a given dimension appears in the bottom of each column in Tables 2 and 3.[27] The number—a 1, 2, or a 3—indicates whether a dimension has a primary, secondary, or tertiary effect, respectively, on the receipt of a pass on the full set of indicators. The influence of a dimension is judged by its statistical significance and, if significant, by the significance of the difference between the accompanying coefficient estimates.[28] Because factor scores are standardized measures, the coefficients represent the effects of a one unit (standard deviation) change in the scores when all other dimensions are held to their means (which, for these standardized variables, is zero).

The results caution against reading too much into the size of a dimension, for they show that a factor's eigenvalue poorly predicts whether it passes or fails the objective qualifying test. Table 2 shows that, only for low income countries in the early period with the second set of criteria—and thus only when the primary dimension draws from *all* the *Ruling Justly* indicators (including those, then, that are linked to government quality)—does the primary dimension best explain a passing score. Even then, that factor ties in influence with another that is linked, as well, to governing quality. Apparent from Table 3, the best predictor for low income countries is consistently a cross-cutting dimension that is associated (albeit weakly) with the governing quality indicators in *Ruling Justly* and various indicators in *Investing in People*. For lower middle income countries, the pattern is somewhat different: the government quality indicators in *Ruling Justly* are consistently the best predictors of passing the test. For these countries, the primary (openness) dimension is never a significant influence on the aid-qualification decision. Despite the attention that the MCC has given to democracy indicators (with attending controversy), the quality of government, apart from its openness, appears to drive the objective qualifying of countries for aid.

Would the findings differ, however, absent prior specification of the dimensions in the data? In other words, would the contours of the influential dimension change when assessing the covariance directly between each of the indicators and the (pass/fail) test score? To obtain the answer, a discriminant analysis is performed on the full sample to determine the set of indicators that best predicts (pass/fail) group membership. A discriminant analysis derives the function, based on some linear combination of variables, that best "discriminates" between (or minimizes the misidentification of) countries that pass versus fail the test. To confirm the prior results, indicators linked to governing quality—especially the government-effectiveness indicator—must weigh heavily in the discriminant function.

The findings reveal that "government quality"—as an independent dimension—has a large weighted impact in the discriminating function, in both the low and lower middle income group, with either set of criteria. Indeed, government effectiveness is the only indicator with a factor structure coefficient that "loads" heavily (a correlation $\geqslant .50$ or $\leqslant -.50$) on the discriminant function in every analysis. For low income countries, corruption, government effectiveness, and rule of law load most heavily on that function; for lower middle income countries, government effectiveness loads heavily on the function (as does corruption when using the first set of indicators). Thus, the quality of government, as linked to government effectiveness, emerges again as a driving force—relative to other dimensions—in candidate-qualification.

(ii) *Funding through compact signing and maintenance*

But what about funding decisions? Are countries given favorable consideration for possessing the same sets of characteristics that placed them in the candidate pool? Or might the MCC seek some sort of balance in funding by giving weight to another set of characteristics? Put differently, if being smart placed students in contention for a scholarship, would the award ultimately go to the smartest of the remaining students or to a smart student who had now also proven themselves creative, dedicated, or talented? The answer, in this case, requires a somewhat more complicated methodology to adjust for the realities of MCC contracting. Specifically, the method must account for the facts that countries: (a) receive compacts for multi-year periods which means that aid received in a given year is not independent of aid received in the prior year; (b) essentially drop out of contention after receiving a compact inasmuch as compacts typically bundle together various projects so that no country received a second compact in the period of analysis;[29] (c) "graduate," sometimes with a compact, from the low income to the lower middle income group; (d) can acquire compacts at an ever-increasing or decreasing rate over time; and (e) do not qualify *or disqualify* for a compact based merely on the "objective-test" score. Consequently, a passing score can independently raise or lower the probability that a country will receive a compact, or it can work in interaction with one or more factors to determine whether a country receives a compact.

Taken as a whole, these factors favor analysis using a Weibull survival (or hazard) model. A hazard model is appropriate for cases (countries) that acquire and then retain a given characteristic (aid) over multiple years or fall entirely out of the data set; a Weibull model is appropriate if the cases acquire the characteristic—here, a compact—at an accelerating (or decelerating) rate, as seems likely if organizational

maturity produced increased efficiency in case evaluation and funding. The models are specified accordingly. For the dependent variable, countries obtain a value of one (otherwise zero) for the year of the compact signing and subsequent years, until the compact ends. As independent variables, the models include: (a) the factor scores for each dimension (in Table 3); (b) a dummy variable indicating whether a country *objectively* qualified for aid in a given year, that is, it "passed" the three-category test, based on the MCC's scoring rules (otherwise zero, the dummy receives a value of one in the fiscal year that a given country passed the test); and (c) interaction terms—pass*factor score$_{1,2,\ldots}$—for the effects of each factor when countries pass the objective test. This specification is necessary to account, respectively, for the various ways that the factors can influence a compact decision: (a) apart from whether a country passes the objective test, (b) only by helping countries to pass the objective test, or (c) differently when a country passes the objective test than when it does not. The models are estimated separately for the LIC and LMIC samples over the full (FY2004–11) period. In these analyses, countries can fall out of the LIC sample when graduating to LMIC status (if they do so with a compact, they enter the LMIC sample with a pre-existing value of "1"). Countries that are ineligible for aid because of legislatively imposed sanctions, or unacceptable corruption or inflation levels are assumed to drop out of the sample in years of ineligibility. LIC and LMIC countries otherwise enter the sample in FY2004 and FY2006, respectively, in a survival process that is posited to have originated in FY2004.

The findings presented in Table 4 establish that the MCC has signed compacts at an increasing rate judging from the Weibull parameter (p) value (that is, $p > 1.00$).

Indeed, the rate at which LMICs acquired compacts, once they could avail themselves of funding, greatly exceeds that for LICs. [30] More importantly, the findings reveal the sources of acceleration. First, they establish that acceleration is attributable to objective test scores regardless of criteria or income group (the pass/fail dummy is positive and significant in all models). Second, they show that the largest factor—which is linked to open governance—has a positive and significant effect on compact acquisition in almost every model (despite its somewhat muted effect on passing the objective test in the prior logistic regression). This deference to governing openness might well reflect the MCC's awarding of compacts to countries through an elaborate evaluation process that draws from a broad-opinion spectrum within candidate countries and thereby favors those with the infrastructure in place to discern and channel public sentiments. Third, the findings reveal a seemingly contradictory effect. Within the LMIC group, the fourth-largest dimension is linked negatively to compact acquisition when using the first set of criteria—though positively, when using the second. But these findings are consistent inasmuch as health and public education spending load positively on this dimension with the first set of criteria and, negatively, with the second. In consequence, they indicate some Board sentiment against LMIC governments that make larger public budgetary investments. Fourth, the findings establish that the Board gives somewhat lesser priority in the awarding of compacts to LMICs with better regulatory quality and fiscal control (the coefficient for the second factor is significant and negative using either set of criteria).

None of the interaction-term coefficients—representing the combined effect of a factor and passing score—are *positive* and significant in the models. That some of the interaction terms are negative and significant suggests that countries that pass the test with high scores on the given dimensions reduce their odds of acquiring a compact relative to other passing countries. Indeed, LICs that pass the objective test—in part because of the influence of the third factor (which is correlated with government effectiveness, rule of law, immunization rate, and girls primary completion)—exhibit a somewhat lower propensity to receive a compact as compared to countries that scored high on other dimensions (e.g., open governance). Likewise, among countries that passed the test, LMICs that scored high on the fourth dimension exhibit a somewhat lower propensity to acquire a compact compared to other countries. [31]

Some perspective on these findings is in order. Assessing the hazard-rate coefficients ($\beta^{\exp}_{1,2,\ldots}$) for the factor scores and interaction terms reveals that, compared to the effect of an objective pass, a one standard deviation change in the value of other variables has a relatively modest effect on survival probabilities. [32] In all, the survival-model analysis provides strong evidence that the MCC is influenced by the *fact of a pass* more than a country's score on specific dimensions: *how* a country qualified for aid is less important consistently than *whether* it qualified for aid. Nevertheless, the findings also

Table 4. *Using the Factor Dimensions to Predict the Signing and Maintaining of MCC Compacts with LICs and LMICs across the Full Period: A Weibull Regression*

Criteria	LIC countries				LMIC countries			
	First set		Second set		First set		Second set	
	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE
Pass	2.38*	.54	2.25*	.49	6.97*	3.48	5.07*	2.57
1	1.16*	.27	1.18*	.30	1.00	.57	1.39*	.48
2	.13	.13	.16	.14	−3.49	1.95	−1.67*	.28
3	.59	.39	.59	.53	1.80	1.04	1.18	.77
4	.	.	.	.	−4.26*	2.08	2.21*	.73
Pass × 1	−.31	.36	−.37	.31	.53	.57	.47	.52
Pass × 2	−.38	.31	−.51	.38	10.94	7.88	6.36	6.90
Pass × 3	−.95*	.32	−.64	.37	.74	1.88	.54	1.06
Pass × 4	.	.	.	.	1.55	2.01	−3.93*	1.29
Constant	−5.16*	.58	−5.14*	.57	−10.08*	4.15	−7.13*	1.49
ln(p)	.39*	.20	.39*	.18	1.25*	.34	1.04*	.18
N	437		437		121		121	

* $p \leqslant .05$.

establish that distortions from the "over-weighting" of certain indicators early in the evaluation of low income countries are reversed to an extent in subsequent decisions. In particular, low income countries with very high scores on the openness factor (the largest, by eigenvalue) are well positioned—pass or fail—to receive a compact, as compared, for example, to countries that passed the test and scored high on governing effectiveness.

5. CONCLUSIONS

The creation of the Millennium Challenge Corporation was a major break with prior US aid practices toward developing countries in rigor, transparency, and prioritization. Yet, the MCC has delivered outcomes that challenge the formal logic and principles that under-ride the organization's practices. Two implications of the findings are clear.

First, the MCC contravenes its principles in aid-candidate qualification. Whereas the MCC has devoted considerable effort to develop criteria favoring countries that are *Ruling Justly*, *Investing in People*, and *Encouraging Economic Freedom*, its procedures actually favor countries that score high on: (a) a narrow set of criteria within each of these categories and (b) dimensions that exist across these categories. Thus, the MCC selects candidates into a pool based on criteria that belie the organization's professed funding goals. It is arguably rewarding good governance. But it is not evaluating candidates exhaustively across their full set of characteristics nor treating all passing scores equally across the full set of indicators.

Despite its attentiveness to open governance, the MCC appears to select candidates for funding based disproportionately on their governing "quality"—*quite apart from their political openness*. That pattern is especially prominent in the MCC's treatment of low income countries, a funding priority. For these countries, the candidate-qualification process favors countries that receive high scores on a *single* empirical dimension that is tied to indicators across the *Ruling Justly*, *Investing in People*, and *Encouraging Economic Freedom* categories. Because measures of governing quality (such as effective governance and lower corruption) and governing openness (such as civil liberties and political rights) are found within the *same* assessment category (*Ruling Justly*), countries that score high on the full set of indicators in that category are at a disadvantage in qualification relative to countries that score high on indicators that covary across categories—here, countries that can translate governing quality into performance on given policy indicators (such as a higher immunization and girls' primary education completion rate). At least in candidate selection, the political openness of potential recipients is not as important a consideration as the rhetoric, redundancy among indicators, and formal rules requiring a passing score on *Ruling Justly* (and corruption) seem to suggest.

Second, the MCC shows some flexibility—overcoming the limits of its original criteria—in funding decisions. Although the first-stage criteria tend not to have a large, direct impact upon the MCC's ultimate funding decisions, the openness of low income countries improves their chances of acquiring a compact, indicating that the MCC's "informal rules" counterbalance the rigidities of the formal process. In this sense, the MCC acts on its assumption that democracy is an exceptional impetus to economic development. Still, the informal rules are likely an incomplete corrective: the formal rules are well established (and have been slow to change); have hidden, structural, and pervasive effects; and were meant (by their number and intricacy) to constrain remedial choices. Indeed, the *mere fact of a pass* on the objective test (following the formal rules) exerts, by far, the strongest systematic impact on funding decisions.

In sum, the MCC has effectively adopted practices that contravene its formal rules in qualifying countries for aid with an inclusive set of measures that are distributed among equally weighted categories. Distorted outcomes are thereby shown to result even from decision rules that are made with great care and implemented with transparency, apart from the *standard operating principles* that feature prominently in the large literature on nonrational organizational practices. True, in-house experts might understand that the informal and formal rules diverge and view the selection outcomes nevertheless as valid. But the probability of "incorrect inferences" can increase enormously when results are judged by their "face validity," without validating the criteria and procedures that are used in assessment. Such validation requires greater attention to first principles, not just fixes that are limited to calculating methods and measure replacement. Short of deliberative answers to a fundamental question—"Exactly what is a well-governed country?"—critics can reasonably ask whether the basic categories that drive MCC assessment equally, independently, or *actually* contribute to good governance. Conceptual clarity and methodological improvements are both *necessary* for improving the quality of MCC selection decisions; neither alone is *sufficient* for that purpose.

This is not to say that the MCC serves only US national interests nor that it ignores the needs of countries that it was established to help: its mission is an important one; and the MCC stands, in multiple respects, as a model of care, openness, and deliberativeness in government. It is to say, however, that the MCC has performed its tasks selectively by its *own standards*. Although it apparently seeks to reward countries for a host of characteristics linked to good governance, the weighting in practice that the MCC gives these characteristics does not follow from a reading of the organization's mandate or any formal statement of preferences within or outside of the organization. The implication is clear, then, that models of government behavior must account—not just for leadership choices among objectives—but also for the mediating role of government institutions as they put the preferences of national leaders into practice. Given the role of these institutions, the implementation of national goals inevitably brings changes to them.

NOTES

1. This is not to say that corrupt governments got favorable treatment (Alesina & Weder, 2002).

2. The direction and significance of effects vary by donor, and democracy—which is tied conceptually to the rule of law—is positively related to bilateral aid in that same period.

3. From its perspective, eligibility for an MCC compact is "a seal of approval, signaling to private investors the country is well-governed and open for business" (MCC, 2012).

4. Of course, the United States might still lavish aid on allies, regardless of their human rights records, when punishing rights abusers that are

deemed less vital to US security. A case in point: despite protests from human rights groups, the United States has allied itself with African governments, possessing less-than-stellar rights records, to combat al-Qaeda linked groups (Whitlock, 2013).

5. Among its deficiencies, then, the focus depreciates foreign domestic conditions and practices as US *national-security* policy concerns. In actuality, post-Cold War-era US policymakers have promoted political and economic change abroad to prevent failing states from becoming terrorist havens and breeding grounds; they have pushed for democratization in the Middle East hoping to build regional stability and a foundation for political cooperation with the West; and so forth.

6. US policymakers have promoted conservative fiscal and monetary policies abroad through the offices of the International Monetary Fund while responding to global deprivation and poverty by designing programs, such as the Bush-era initiative to fight acquired immunodeficiency syndrome (AIDS) in Africa, to help the poorest of the poor countries cope with a severe health crisis, resource deficiencies, and bleak prospects for development. The competing approaches to development—a liberal economic and egalitarian approach—are each pushed by strong and persistent political advocates within and outside the government.

7. On how simple rules might explain organizational behavior, see Bendor and Hammond (1992).

8. This could restrict the number of countries that the MCC Board of Directors qualifies for aid.

9. In 2008, the MCC obligated a yearly high of 3.3 billion dollars in aid to around three dozen countries. The data are from: http://www.usaid.gov/policy/greenbook.html.

10. This has created difficulties—and forced Congressional policy adjustments—when countries graduated into the lower middle income group—effectively reducing their *relative* economic performance—sometimes after having qualified for a compact as a low income country.

11. Interestingly, for FY2012, the MCC modified its scoring to make it less sensitive to the median on key indicators: a threshold value was employed, instead, for political rights, civil liberties, and immunization rates (>90 percent%) and was retained for inflation (<15 percent%). MCC, 2011a.

12. These problems are not mitigated by the MCC's requirement that countries score above the median on the corruption measure.

13. On these indicators, see www.freedomhouse.org.

14. On the multidimensional nature of human rights, see Landham and Carvalho (2010); on their relationship to democracy, see Abouharb and Cingranelli (2007, pp. 210–211). These rights obtain added significance here because roughly a third of the MCC indicators arguably pertain to human rights (Landham and Carvalho (2010, p. 41)).

15. Although the MCC correctly dropped voice and accountability as a performance criterion in FY2012, its decision to substitute freedom of information for the old indicator presents new problems of redundancy.

16. On these issues in measuring democracy, see Munck & and Verkuilen, (2002).

17. True, spending and performance are closely linked and input and output measures are legitimately combined in analysis to make best use of reliable data that are available. But that does not explain the interchangeable indicators or redundancies that allow a country to qualify for selection, for example, with higher health spending and immunization rates.

18. The analysis was conducted by trying, as much as possible, to duplicate MCC procedures. The data that the MCC provided in a usable format, however, contained updated values that departed, in instances, from those that the MCC employed when making its annual selection decisions when the MCC must rely upon the *available* data for a country in a given year. In consequence, it might use an older figure for one country and a newer figure for another or older figures for some indicators and newer figures for others. Using these data in the analysis, then, would generate dimensions as they *appeared* in a given year rather than reveal the actual dimensions in the data, which is of interest here. Given the stability of the data—one of the reasons that the MCC employs them—the use of updated data is unlikely to affect the findings (as indicated by their overall strength and consistency) and might help to reduce the number of missing values in the analysis which *could* threaten the validity of the findings.

19. In these analyses, the cost of starting a business is employed instead of credit rating in the FY2004–05 period.

20. An orthogonal rotation follows from the MCC practice of treating the three categories as independent dimensions inasmuch as a passing score in each category is necessary for countries to receive an overall pass.

21. The discerning of three and even four underlying factors challenges prior findings (see Knoll & Zloczysti, 2012; Langbein & Knack, 2010), likely due to varying missing-data substitution strategies and this study's effort to mirror MCC procedures in a given time period.

22. Following the MCC's own data substitution strategy, the most recent figure (over the prior decade) for a country and year is used (in normalized form) to replace missing values; missing values that remain are imputed using the (impute) iterative regression procedure in STATA 11, incorporating the full set of MCC indicators.

23. Although regulatory quality appears conceptually related to the corruption, rule of law, and effective governance indicators, it is grouped by the MCC with *Encouraging Economic Freedom* indicators that include the challenges in starting businesses, trade policy, and land access.

24. Whereas models could be estimated that predict, instead, whether countries were actually deemed compact eligible, the factors weighing into the Board decision on that matter—including whether funds are available—make those models less useful for determining the practical implications of the dimensionality of the data.

25. Published annually by the MCC, a *Scorebook* lists the countries that are eligible for assistance, their scores on each of a set of standardized measures, the year for which the data are assessed, the passing score for an indicator, and a country's pass/fail rating per indicator. The analysis, here, is based on a simple one-year lag: the pass/fail scores from a *Scorebook* in a given fiscal year are explained by the dimensions that are discerned in the data for the prior chronological year (using the data that were employed in the factor analysis). In other words, 2004 data are used to explain the decisions that were made for FY2005 (that ran from October 1, 2005–September 30, 2006).

26. In these analyses, countries that are ineligible for aid because of legislatively imposed sanctions are excluded from the sample. These countries are listed in the MCC's annual reports on country eligibility.

27. In these analyses, countries received a passing or failing score on the credit rating indicator for FY2004–05 but factor scores are calculated using the cost of starting a business indicator.

28. The significance of the difference was tested using the lincom (linear combination of estimators) procedure in STATA 11.

29. In FY2012, Ghana and Zambia (in the LIC group) and Georgia and Cape Verde (in the LMIC group) were re-selected for compacts. Benin and El Salvador were invited to submit proposals for a second compact (MCC, 2011b).

30. As is discernible from ln(p), the average value of p—across the two sets of indicators—is 1.5 for LICs and 3.2 for LMICs.

31. Given the negative loadings of the public spending indicators on this dimension, the reality is that countries that receive a pass and score *high* in health and primary education spending have an increased propensity to acquire a contract.

32. Whereas a passing grade increases the probability of a LIC acquiring a compact by roughly a factor of ten, a one-unit increase in value for the first (open- governance) factor improves the odds of a LIC acquiring a compact roughly by a factor of three (for either set of indicators). For that matter, a one-unit increase in value for the third-factor interaction term (linked to governing effectiveness and various *Investing in People* indicators) decreases the chances of a country receiving a compact by approximately a third. For LMICs, a passing grade is virtually essential to receive a compact, as no other independent variable comes close to matching a passing score's probabilistic impact.

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APPENDIX A

See Table 5.

Table 5. *Using the Factor Dimensions to Predict Passing Scores on the Objective Test by LICs and LMICs in Two Periods: A Logistic Regression*

	LICs						LMICs					
	FY2004–07		FY2008–11		FY2004–11		FY2006–07		FY2008–11		FY2006–11	
	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE
First set of criteria												
Dimension												
1	1.19*	.24	.21	.15	1.15*	.25	.33	.55	−.50*	.25	−.09	.32
2	2.13*	.31	1.08*	.38	−.15	.11	3.04*	.89	−1.74*	.43	−3.38	1.98
3	.	.	2.12*	.50	1.97*	.30	−1.17*	.53	1.61*	.41	1.79*	.40
4	.	.	.	.	.	.	.33	.45	−.20	.27	−.69	.43
Const	−1.71*	.26	−2.18*	.34	−1.85*	.21	−2.52*	.72	−3.53*	.59	−3.66*	.93
Chi-sq	58.16*		18.27*		46.16*		13.88*		24.52*		25.93*	
N	307		274		581		61		131		192	
Second set of criteria												
Dimension												
1	1.41*	.24	1.11*	.34	1.21*	.22	.14	.56	−.22	.27	.22	.31
2	1.57*	.28	.29*	.14	.03	.10	−1.42*	.69	−4.40	2.38	−5.14*	2.01
3	.	.	1.89*	.38	1.60*	.24	2.90*	.85	1.84*	.54	1.82*	.38
4	.	.	.	.	.	.	.	.	1.77*	.76	1.65*	.52
Const	−1.58*	.24	−2.12*.	.29	−1.74*	.19	−2.43*	.77	−5.40*	1.72	−4.68*	1.14
Chi-sq	67.00*		24.99*		63.40*		12.94*		17.53*		27.76*	
N	307		274		581		61		131		192	

* $p \leqslant .05$.

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